

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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|-------------------------|---------------------------|
| In the Application of   | )                         |
| Thomas A. Follo et al.  | ) Examiner: E.F. Landrum  |
|                         | )                         |
| Title: RAZOR CARTRIDGE  | ) Group Art Unit: 3724    |
|                         | )                         |
| Serial No.: 10/816,657  | ) Confirmation No. 9671   |
|                         | )                         |
| Filed On: April 2, 2004 | ) (Docket No.: 6579-0439) |

Middletown, Connecticut, April 23, 2008

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDED APPEAL BRIEF**

Sir:

This is an amended Appeal Brief mailed in response to the Notification of Non-Compliant Appeal Brief mailed by the Patent Office on March 24, 2008. In the Notification of Non-Compliant Appeal Brief, the Patent Office alleged that the Appeal Brief did not contain a statement of the status of all claims or did not identify the appealed claims.

Appellants herewith submit this amended Appeal Brief in which Section III entitled "Status of Claims" is amended to reflect that various claims in the application were either cancelled or withdrawn. No other portions of the Appeal Brief have been changed from the originally-filed Appeal Brief.

Appellants respectfully request that the Appeal Board consider the Arguments presented herein.

One copy of this amended Appeal Brief is filed herewith.

## **I. REAL PARTY IN INTEREST**

The real party in interest in this Appeal is EVEREADY BATTERY COMPANY, INC., of St. Louis, Missouri.

## **II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interference proceedings known to Appellants, Appellants' legal representatives, or assignees that would directly affect or be directly affected by or have a bearing on the decision of the Board of Patent Appeals and Interferences in this Appeal.

## **III. STATUS OF CLAIMS**

Claims 1, 4, 8, 10, 23, 24, and 28-31 are pending. Claims 2, 3, and 6 have been cancelled. Claims 5, 7, 9, 11-22, 25-27, and 32 have been withdrawn. Claims 1, 4, 8, 10, 23, 24, and 28-31 remain for consideration and are under appeal from the Examiner's final rejection. The claims under appeal, in their current form, are reproduced in the Claims Appendix, Section VIII of this Brief.

## **IV. STATUS OF AMENDMENTS**

No amendments have been made since the final rejection.

## **V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Claim 1 recites a razor cartridge 10 comprising a guard portion 18, a cap portion 22, and at least four razor blades. (Specification, page 6, lines 19-26, Figures 1, 3, 5, and 7.) The at least four razor blades are positioned between the guard portion 18 and the cap portion 22 and include a first razor blade 16 being positioned adjacent to the guard portion 18, a last razor blade 20 being positioned adjacent to the cap portion 22, (Specification, page 6, lines 21-25, Figures 1, 3, 5, and 7) and at least two interior razor blades (second razor blade 24, third razor blade 26) being positioned between the first razor blade 16 and the last razor blade 20 (Specification, page 6, lines 26-28, Figures 1, 3, 5, and 7.) Each of the razor blades has a cutting edge (Specification, page 2, lines 4-5) and an overall exposure relative to at least two skin engaging surfaces defined by the razor cartridge 10 (Specification, page 2, lines 12-20). The overall exposure of each of the four razor blades is equal to an average of four individual exposures measured along a length defined by the razor blade for which exposure is sought.

(Specification, page 2, lines 13-18.) The individual exposures are equal to the length of an exposure line extending between the cutting edge of the razor blade for which exposure is being sought and a tangent line, the exposure line being approximately perpendicular to the tangent line. (Specification, page 7, lines 14-17.) The tangent line is defined by two points, one of the points being positioned on a skin engaging surface immediately preceding the razor blade for which exposure is being sought, and the other of the two points being located on a skin engaging surface immediately aft of the razor blade for which exposure is being sought. (Specification, page 7, lines 8-13.) The overall exposure of the first razor blade 16 is negative, and the cartridge defines a non-progressive blade geometry (Specification, page 8, line 7) such that the overall exposures of the interior razor blades are substantially the same. (Specification, page 8, lines 16-20, Figures 1, 2, and 2a.)

## **VI. GROUNDS OF REJECTION TO BE REVIEWED**

- A. Claims 1, 4, 8, 10, and 28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 1,252,982 to Coffin.
- B. Claims 23 and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 1,252,982 to Coffin in view of U.S. Patent No. 6,212,777 to Gilder.
- C. Claims 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 1,252,982 to Coffin in view of U.S. Patent No. 4,407,067 to Trotta.
- D. Claim 31 under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 1,252,982 to Coffin in view of U.S. Patent No. 5,365,665 to Coffin.

## **VII. ARGUMENT**

- A. *The Examiner has rejected claims 1, 4, 8, 10, and 28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over European Patent Application No. 1,252,982 to Coffin (hereinafter “the Coffin ‘982 application”).*

In rejecting claim 1 of the present application, the Examiner, *inter alia*, noted:

...the examiner takes official notice that it would have been an obvious design choice to a person of ordinary skill in the art to make the first blade negative, the overall exposure of the interior razor blades substantially equal, and the last blade's exposure positive and not less than the overall exposure of the interior blades, because discovering the optimal exposure of each blade as related to every other blade and the cartridge as a whole would have been a mere design consideration based on the "feel" wanted by a user for a particular shaving function, or the tuning of a razor for a specific application. Such a modification would have involved only a routine skill in the art to accommodate a user's requirements. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges of parts would only involve routine skill in the art.

(See Office Action of February 12, 2007, pp. 3-4).

The Appellants disagree with the Examiner's rejection. "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." See MPEP 2143. Below, the Appellants have traversed the present rejection.

Claim 1 is reproduced below for convenience:

1. A razor cartridge comprising:
  - a guard portion;
  - a cap portion;
  - at least four razor blades positioned between said guard portion and said cap portion, including a first razor blade being positioned adjacent to said guard portion, a last razor blade being positioned adjacent to said cap portion, and at least two interior razor blades being positioned between said first razor blade and said last razor blade, each having a cutting edge and an overall exposure relative to at least two skin engaging surfaces defined by said razor cartridge;
  - said overall exposure of each of said four razor blades being equal to an average of four individual exposures measured along a length defined by said razor blade for which exposure is sought;
  - said individual exposures being equal to the length of an exposure line extending between the cutting edge of the razor blade for which exposure is being sought and a tangent line, said exposure line being approximately perpendicular to said tangent line and wherein
  - said tangent line is defined by two points, one of said points being positioned on a skin engaging surface immediately preceding said

razor blade for which exposure is being sought, and the other of said two points being located on a skin engaging surface immediately aft of said razor blade for which exposure is being sought, and wherein said razor cartridge defines a non-progressive blade geometry such that said overall exposures of said interior razor blades are substantially the same.

The Coffin '982 application is directed to a razor cartridge that includes a frame, at least four razor blades supported by the frame, a guard disposed forward of the razor blades, and a cap disposed aft of the razor blades. The guard and the cap define contact surfaces. The razor blades are arranged so that the cutting edge of each is adjacent a contact plane (designated by the reference numeral 36) that tangentially intersects the contact surfaces of the guard and the cap and represents the theoretical position of the surface being shaved. The position of a cutting edge of a razor blade relative to the contact plane is the "exposure" of the cutting edge.

The Coffin '982 application fails to render obvious a razor cartridge that defines non-progressive blade geometry such that said first blade has a negative overall exposure and the interior razor blades have substantially the same exposure. In fact, as previously stated in the Response dated December 8, 2006, Coffin '982 only discloses a single embodiment wherein the interior blades have the same exposure (see e.g., Coffin '982 patent, col. 5, lines 9-16). In that Coffin '982 embodiment, each of the four (4) blades has an exposure, measured relative to a line tangent to the guard and cap, equal to zero (*i.e.*, the exposures are all neutral). In other words, each cutting edge of the blades lies on the line tangent to the guard and cap. The present rejected claim is not rendered obvious by such an embodiment since it is impossible to achieve a razor cartridge of the present invention (*i.e.*, a razor cartridge that has a negative first blade, and interior blades having the same exposure) using the Coffin '982 disclosure. In addition, because the relative positioning of the blades would be significantly changed, one of skill in the art would not arrive at the present simply from the suggestion that the exposures of the blades can be "tuned". Furthermore, the Examiner has not stated *why* one of skill in the art would modify Coffin '982 to arrive at *this* invention. The Examiner has only stated that one of skill in the art would be likely to come across the claimed device through experimentation. However, one must take into account the specific teaching in the art to determine *how* one of skill in the art would, in fact, be likely to attempt to modify Coffin '982. Simply looking at the art the Examiner has cited in the rejection of claims 23 and 24

(both of which depend from claim 1) is telling. U.S. Patent No. 6,212,777 to Gilder (hereinafter “the Gilder patent”) discloses a razor having geometry where the exposures progressively increase because:

[t]his arrangement has the effect of tending to equalise the work performed by the respective blades, since in a multiple blade razor the leading blade has a tendency to do most of the work. Of course the exposure of the primary blade must not be so low that it will not make effective contact with the skin surface being shaved.

(See the Gilder patent, col. 1, lines 63-66). The present invention does not have progressive geometry; rather, claim 1 specifically recites that the present invention has *non-progressive* geometry. Accordingly, the Appellants submit that, without more, it would be unlikely that one of skill in the art would modify the Coffin ‘982 device to arrive at the present invention. More specifically, in light of the fact that 1) the Coffin ‘982 vaguely states that the blade exposures can be “tuned” and 2) when the Coffin ‘982 is read in light of other recent teachings, such as the Gilder patent, one of ordinary skill in the art would likely be lead away from the present invention. Therefore, the Appellants submit that the Coffin ‘982 fails to render obvious a razor cartridge having non-progressive exposures because it would not be obvious for one of skill in the art to modify the Coffin ‘982 patent in the manner in which the examiner suggests based on the cited art.

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Because claims 4, 8, 10 and 28 depend from claim 1, these claims are also believed to be allowable for at least the same reasons, as well as by virtue of the additional claim recitations included therein. Consequently, Appellants respectfully request that the rejections these claims be reconsidered.

*B. The Examiner has rejected claims 23 and 24 under 35 U.S.C. §103(a) as being unpatentable over the Coffin ‘982 Application in view of the Gilder patent*

In rejecting these claims, the Examiner noted, *inter alia*, that:

Coffin ‘982 teaches all of the elements of the current invention as stated above except for specific ranges for the overall exposure of each blade. ...

Gilder teaches acceptable range of exposures for razor blades that are increasing in exposure. ...

It would have been obvious to have modified Coffin ‘982 to incorporate the teachings of Gilder to find optimal ranges or positions as related to the

overall exposure of each blade for the purpose of preventing irritation and increasing the life of the blades by allowing each blade to aid in the cutting process instead of a single blade performing most of the cutting operation. Furthermore, it would have been an obvious matter of design choice to a person of ordinary skill in the art to arrange the blades within specific parameters related to the overall exposure of each individual blade because discovering a workable range for the exposure of each blade would have been a mere design consideration based on the desired cutting depth of each blade as related to the feel of the device. Such a modification would have only involved routine skill in the art to accommodate any user based requirements. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal workable ranges involves only routine skill in the art.

(See Office Action of February 12, 2007, pp. 4-5).

The Appellants disagree with the Examiner's rejection. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." See MPEP 2143.03 (*citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Below, the Appellants have traversed the present rejection.

Claims 23 and 24 depend (indirectly) from claim 1. The teachings of claim 1 have been discussed above.

The teachings of the Coffin '982 patent have been discussed above.

The Gilder patent teaches a safety razor blade unit having *progressively increasing* blade exposures. The razor blade unit includes a guard, a cap, and a group of three blades with parallel sharpened edges located between the guard and cap, the first blade defining a blade edge nearest the guard having a negative exposure not less than -0.2 mm, and the third blade defining a blade edge nearest the cap having a positive exposure of not greater than +0.2 mm, the second blade defining a blade edge having an exposure not less than the exposure of the first blade and not greater than the exposure of the third blade.

For the same reasons stated above, with respect to the rejection in Para. 2 of the Office Action of February 12, 2007, claim 1 is not obvious in light of the Coffin '982 patent. As also argued in the December 8, 2007 Response, the Appellants continue to assert that the Gilder patent does not cure the noted deficiencies of the Coffin '982 patent, and in fact teaches away from the present invention, as claimed. As noted above, the Gilder patent does

not teach a razor cartridge having razor blades with *non-progressive* exposures (*i.e.*, a negative first blade and interior blades having exposures that are the *same*). Rather, the Gilder patent discloses a three-bladed system that has constantly increasing blade exposures (e.g., 1<sup>st</sup> blade = -0.02mm, 2<sup>nd</sup> blade = 0mm, and 3<sup>rd</sup> blade = +0.02mm). Therefore, one of skill in the art would not modify the Coffin '982 patent using the Gilder patent to arrive at the present invention because the Gilder patent teaches away from a razor cartridge having adjacent blades with the same exposure. In fact, if one of skill in the art were attempt to combine the Gilder reference and the Coffin '982 reference, he or she would actually be lead away from arriving upon the razor cartridge recited in claim 1 (*i.e.*, a razor cartridge having *non-progressive* exposures and not one that has *progressively increasing* exposures). The Examiner is reminded that "a prior art reference must be considered in its entirety, *i.e.*, as a whole, including portions that would lead away from the claimed invention." 2141.02 (citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984)).

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Because claims 23 and 24 depend from claim 1, this claim is also believed to be allowable for at least the same reasons, as well as by virtue of the additional claim recitations included therein. Consequently, Appellants respectfully request that the rejection of claims 23 and 24 be reconsidered.

C. *The Examiner has rejected claims 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over the Coffin '982 Application in view of U.S. Patent No. 4,407,067 to Trotta (hereinafter "the Trotta patent")*

In rejecting the above claims, the Examiner noted, *inter alia*, that:

Coffin '982 teaches all of the elements of the current invention as stated above except the largest intrablade span not being greater than 1.65mm and the smallest intrablade span not being greater than 1.2mm.

Trotta teaches (Col. 4, lines 67-68) intrablade spans being preferably between 0.03 and 0.08 inches, which is between .762 and 2.032 mm.

It would have been obvious to have modified Coffin '982 to incorporate the teachings of Trotta to incorporate intrablade spans that decreased between an optimum range for the purpose of improving comfort and increasing performance by preventing the skin of a user to become unstretched while cutting, potentially nicking a user or decreasing the performance of the shaver. Furthermore, it would have been an obvious matter of design choice to a person of ordinary skill in the art to arrange the



blades within specific parameters related to the span between each blade because discovering a workable range for span between each blade would have been a mere design consideration based on a user's comfort and performance requirements. Such a modification would have only involved routine skill in the art to accommodate any user based requirements. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimal workable ranges involves only routine skill in the art.

(See Office Action of June 8, 2006, p. 5).

The Appellants disagree with the Examiner's rejection. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." See MPEP 2143.03 (*citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Below, the Appellants have traversed the present rejection.

Claims 29 and 30 depend (indirectly) from claim 1. The teachings of claim 1 have been discussed above.

The teachings of the Coffin '982 patent have been discussed above.

The Trotta patent discloses a shaving implement including a platform member, a cap member, and blade means disposed therebetween, the cap member including a series of forwardly extending fingers separated by recesses, the fingers having a first skin-engaging point thereon, and the recesses being defined in part by a cap member wall comprising a second skin-engaging point, the blade means comprising first and second blades each having a blade tangent angle in the range of 20° to 32° and a span in the range of 0.030 to 0.080 inch, the first blade having an exposure of 0.0015+/-0.0015 inch, and the second blade having alternating first and second exposures along its length, the first exposure being determined by a first tangent line extending from the first cutting edge to the first skin-engaging point, and the second exposure being determined by a second tangent line extending from the first cutting edge to the second skin-engaging point.

For the same reasons stated above, with respect to the rejection in Para. 2 of the Office Action of February 12, 2007, claim 1 is not obvious in light of the Coffin '982 patent. The Trotta patent does not cure the noted deficiencies of the Coffin '982 patent and in no way

suggests to one of skill in the art to modify the Coffin '982 patent to arrive at the recited device in claim 1. Accordingly, the Coffin '982 and Trotta patent, alone or in combination, do not teach or suggest the invention of claim 1.

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Because claim 28 and 29 depend from claim 1, these claims are also believed to be allowable for at least the same reasons, as well as by virtue of the additional claim recitations included therein. Consequently, Appellants respectfully request that the rejection of claims 28 and 29 be reconsidered.

D. *The Examiner has rejected claim 31 under 35 U.S.C. §103(a) as being unpatentable over the Coffin '982 Application in view of U.S. Patent No. 5,365,665 to Coffin (hereinafter "the Coffin '665 patent")*

In rejecting the above claim, the Examiner noted, *inter alia*, that:

Coffin'982 teaches all of the elements of the current invention as stated above except wash through openings defined by a rear surface of the razor cartridge and a longitudinal wedge shaped surface aligned with the openings.

Coffin '665 teaches (see Figures 4 and 5) the use of a plurality of openings (12) in a rear wall of a shaving cartridge and a longitudinal wedge shaped surface (10) aligned with the wash through openings for the purpose of optimizing cleaning efforts by preventing soap residue from gathering inside the housing.

It would have been obvious to have modified Coffin '982 to incorporate the teachings of Coffin '665 to add a plurality of wash-through openings and a wedge shaped surface into the rear of the ... shaving cartridge for the purpose of making the shaving unit easier to clean thereby the shaving cartridge last longer, as well as cut better by removing debris on the blades that could potentially hinder cutting performance.

(See Office Action of February 12, 2007, page 6).

The Appellants disagree with the Examiner's rejection. "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." See MPEP 2143.03 (*citing In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). Below, the Appellants have traversed the present rejection.

Claim 31 depends (indirectly) from claim 1. The teachings of claim 1 have been discussed above.

The teachings of the Coffin '982 patent have been discussed above.

The Coffin '665 patent discloses a razor head having a plastic housing with a front guardbar, a rear wall, and a blade platform for supporting at least one razor blade. At least two spacers are affixed to the razor blades and are spaced apart to form openings between them. Perforations that are aligned with these openings are provided in the rear wall and/or the blade platform.

For the same reasons stated above, with respect to the rejection in Para. 2 of the Office Action of February 12, 2007, claim 1 is not obvious in light of the Coffin '982 patent. The Coffin '665 patent does not cure the noted deficiencies of the Coffin '982 patent and in no way suggests to one of skill in the art to modify the Coffin '982 patent to arrive at the recited device in claim 1. Accordingly, the Coffin '982 and Coffin '665 patent, alone or in combination, do not teach or suggest the invention of claim 1.

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Because claim 31 depends from claim 1, this claim is also believed to be allowable for at least the same reasons, as well as by virtue of the additional claim recitations included therein. Consequently, Appellants respectfully request that the rejection of claim 31 be reconsidered.

## **SUMMARY**

Appellants respectfully request that the present application be allowed to issue as a patent.

If the Examiner believes that a telephone conference with Appellants' attorneys would be advantageous to the disposition of this case, the Examiner is invited to telephone the undersigned.

Applicants' Deposit Account No. 504112 has already been charged in the amount of \$2740.00 for the five-month extension fee and Appeal Brief. If any additional charges are



## **VIII. Claims Appendix**

1. A razor cartridge comprising:
  - a guard portion;
  - a cap portion;
  - at least four razor blades positioned between said guard portion and said cap portion, including a first razor blade being positioned adjacent to said guard portion, a last razor blade being positioned adjacent to said cap portion, and at least two interior razor blades being positioned between said first razor blade and said last razor blade, each having a cutting edge and an overall exposure relative to at least two skin engaging surfaces defined by said razor cartridge;
  - said overall exposure of each of said four razor blades being equal to an average of four individual exposures measured along a length defined by said razor blade for which exposure is sought;
  - said individual exposures being equal to the length of an exposure line extending between the cutting edge of the razor blade for which exposure is being sought and a tangent line, said exposure line being approximately perpendicular to said tangent line and wherein said tangent line is defined by two points, one of said points being positioned on a skin engaging surface immediately preceding said razor blade for which exposure is being sought, and the other of said two points being located on a skin engaging surface immediately aft of said razor blade for which exposure is being sought, wherein said overall exposure of said first razor blade is negative; and wherein said razor cartridge defines a non-progressive blade geometry such that said overall exposures of said interior razor blades are substantially the same.
4. A razor cartridge as defined by claim 1 wherein said overall exposures of said interior blades is greater than an overall exposure defined by said first razor blade.
8. A razor cartridge as defined by claim 4 wherein an overall exposure defined by said last razor blade is not less than said overall exposures defined by said interior razor blades.
10. A razor cartridge as defined by claim 8 wherein said overall exposure of said last razor blade is positive.

23. A razor cartridge as defined by claim 4 wherein said overall exposures of said interior blades is between negative 0.04 mm and positive 0.04 mm.
24. A razor cartridge as defined by claim 4, wherein: said first razor blade defines an overall exposure of between approximately -0.05 mm and approximately +0.03 mm.
28. A razor cartridge as defined by claim 1 having intrablade spans, wherein the intrablade spans decrease from the guard to the cap.
29. A razor cartridge as defined by claim 28 wherein said largest intrablade span is not greater than 1.65 mm.
30. A razor cartridge as defined by claim 29 wherein said smallest intrablade span is not greater than 1.20 mm.
31. A razor cartridge as defined by claim 1 further comprising a plurality of wash-through openings defined by a rear surface of the razor cartridge, and a longitudinal wedge-shaped surface extending lengthwise across the razor cartridge and positioned so that the longitudinal wedge-shaped surface is aligned with the wash-through openings.

**Evidence Appendix (35 USC §41.37(c))**

No evidence is submitted with this Appeal Brief.

**Related Proceedings Appendix (35 USC §41.37(c))**

No related proceedings are known to Appellants or Appellants' legal representatives.